

REMARKS

This paper is responsive to any paper(s) indicated above, and is responsive in any other manner indicated below.

EXAMINER INTERVIEW ACKNOWLEDGED/STATEMENT OF SUBSTANCE

This paper is responsive to the examiner interview conducted February 2007, by and between (as indicated on the Interview Summary document) John B. Strege and attorney Paul J. Skwierawski, in the present application. More particularly, any foregoing amendments may include amendments discussed during, or resultant from, the examiner interview, and the following includes a reiteration of discussions/arguments had during the examiner interview.

PENDING CLAIMS

Claims 28-30 and 32-38 were pending, under consideration and subjected to examination in the Office Action. Appropriate claims have been amended, canceled and/or added (without prejudice or disclaimer) in order to adjust a clarity and/or focus of Applicant's claimed invention. That is, such changes are unrelated to any prior art or scope adjustment and are simply refocused claims in which Applicant is presently interested. At entry of this paper, Claims 28-30 and 39-48 will be pending for further consideration and examination in the application.

ALLOWED CLAIMS

Independent claim 28, and dependent claims 39, 40 and 43 have been allowed, as indicated within the "Allowable Subject Matter" section on page 5 of the

Office Action. Applicant and the undersigned respectfully thank the Examiner for such indication of allowable subject matter.

ALL REJECTIONS UNDER 35 USC '103 - TRAVERSED

All 35 USC rejections are respectfully traversed. However, such rejections have been rendered obsolete by the present clarifying amendments to Applicant's claims, and accordingly, traversal arguments are not appropriate at this time. However, Applicant respectfully submits the following to preclude renewal of any such rejections against Applicant's clarified claims.

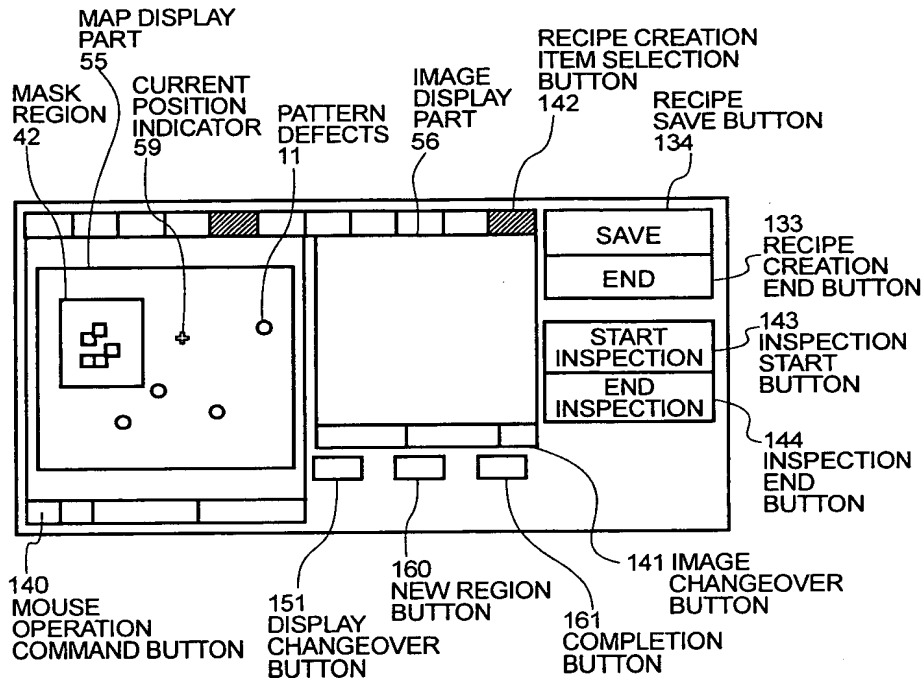
All descriptions of Applicant's disclosed and claimed invention, and all descriptions and rebuttal arguments regarding the applied prior art, as previously submitted by Applicant in any form, are repeated and incorporated hereat by reference. Further, all Office Action statements regarding the prior art rejections are respectfully traversed. As additional arguments, Applicant respectfully submits the following.

Applicant's disclosed and claimed invention is directed to improved pattern inspection arrangements (e.g., an apparatus). During pattern inspection, at times, there are layout portions which change from specimen-to-specimen (e.g., die-to-die), but which are not defects (i.e., such may be called "don't care layout portions"). An example might be terminal connector areas which will not affect/degrade die operation, even if there are substantial variations thereof from die-to-die. In order to avoid irrelevant defect candidate areas, it would be useful to be able to user-designate select pattern areas as irrelevants or "don't cares". In short, part of Applicant's disclosed and claimed invention is directed toward enabling a user to

easily set up a **user-originated** masked non-inspection region with respect to any patterned area to be inspected.

As further explanation, Applicant's FIG. 14 is reproduced herewith:

FIG.14



Once a specimen has been scanned and an image containing defect candidates is obtained, such image can be displayed in the map display part 55 window. Applicant can utilize the "new region button 160" to indicate that he/she desires to user-originate a region of the image as a "don't care" masked region. A mouse or other input device can then be used to define a user-originated mask region 42 (including "don't care" defect candidates. Once the user is satisfied with the defined mask region, he/she may use the "completion button 161" to finally accept the mask region. Such FIG. and operation are especially described in Applicant's specification page 25.

In terms of distinguishing claim features/limitations, at minimum, Applicant's independent claim 29, for example, is distinguished by: an input device for user-inputting information of a user-originated region to be masked on the object substrate; defect detecting means for detecting defects of the pattern formed on said object substrate by comparing the digital image attained by the image detecting means with a reference image; and output means for outputting data regarding the defects detected by the defect detecting means by masking and excluding defects from the user-originated region matching with the information inputted by the input device."

Turning now to rebuttal of the applied art, neither applied reference discloses or suggests a user-originated masking region, then detecting defects of the pattern/object, then masking/excluding defects from the user-originated masking region. More particularly, Gallarda et al. discloses a "template", but nowhere does Gallarda et al. disclose or suggest that the template is user-originated. That is, Gallarda et al.'s "template" appears to be pre-provided with Gallarda et al.'s arrangement, before there is user-interaction (if any). It is respectfully noted that even feature extraction within Gallarda et al. appears to be automatically conducted using "filters", not user-interaction (i.e., see Gallarda et al.'s col. 17, lines 45-59).

Similarly, Murase's "mask" is not user-originated, but instead, derives from a "brightness threshold value" which defines a non-examination (mask) region to be excluded from examination (see abstract, or third paragraph of Murase's independent claim 1, for example).

Given that neither applied reference discloses or suggests suggests a user-originated masking region, it is respectfully submitted that no combination of the

applied references would have disclosed or suggested Applicant's **a user-originated masking region**, then detecting defects of the pattern/object, then masking/excluding defects from the user-originated masking region (i.e., see the highlighted limitations of Applicant's claims, discussed previously above).

As a result of all of the foregoing, it is respectfully submitted that the applied art would not support a '103 obviousness-type rejection of Applicant's claims. Accordingly, reconsideration and withdrawal of such '103 rejection, and express written allowance of all of the rejected claims, are respectfully requested.

ALLOWABLE CLAIMS DUE TO PARALLELISM

Unrelated to any prior art rejections, claims 45-48 having substantial parallelism (i.e., substantially similar features/limitations) with allowed claims 28, 39, 40 and 43, respectively, have been added, with claims 45-48 being supplemented with "user-originated" language. Owing to such parallelism with allowed claims, such claims 45-48 should likewise be allowable over the prior art of record. Accordingly, consideration and express written allowance of such claims are respectfully requested.

EXAMINER INVITED TO TELEPHONE

The Examiner is herein invited to telephone the undersigned attorneys at the local Washington, D.C. area telephone number of 703/312-6600 for discussing any Examiner's Amendments or other suggested actions for accelerating prosecution and moving the present application to allowance.

RESERVATION OF RIGHTS

It is respectfully submitted that any and all claim amendments and/or cancellations submitted within this paper and throughout prosecution of the present application are without prejudice or disclaimer. That is, any above statements, or any present amendment or cancellation of claims (all made without prejudice or disclaimer), should not be taken as an indication or admission that any objection/rejection was valid, or as a disclaimer of any scope or subject matter. Applicant respectfully reserves all rights to file subsequent related application(s) (including reissue applications) directed to any/all previously claimed limitations/features which have been subsequently amended or cancelled, or to any/all limitations/features not yet claimed, i.e., Applicant continues (indefinitely) to maintain no intention or desire to dedicate or surrender any limitations/features of subject matter of the present application to the public.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully submits that the claims listed above as presently being under consideration in the application are now in condition for allowance.

To the extent necessary, Applicant petitions for an extension of time under 37 CFR '1.136. Authorization is herein given to charge any shortage in the fees, including extension of time fees and excess claim fees, to Deposit Account No. 01-2135 (Case No. 501.40830VX1) and please credit any excess fees to such deposit account.

Based upon all of the foregoing, allowance of all presently-pending claims is respectfully requested.

Respectfully submitted,

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